Turnitin refused to upload the PDF without any text hence I'm having to write this to make up 20 words

VOLVO

Dakar Concept

Alistair Barkley

Off road racing has always been a great interest of mine. The idea of 10 ton trucks bashing through the desert at over 100mph can certainly provide more visual entertainment than for example a Formula 1 car going round a track multiple times on a Sunday afternoon. I therefore decided to think about where endurance off road racing could go in the quest to become sustainable. The inspiration for this project mostly came from the new series 'Extreme E'. While the cars were purpose built and are extremely fast, there is a major limiting factor to their racing: range. It is almost certain that this will improve with time but as it is, 10 minutes of flat-out racing can leave a little bit to be desired.

This got me thinking: how could one create a non-polluting race vehicle designed to travel distances similar to the Paris Dakar?

The answer came in the form of a truck. Volvo have Raced in the Dakar before, more predominantly with their smaller SUVs. However, they seem like a good fit for what I want to do. Their lorries are quite common across Europe therefore it would be fitting to create a race variant for them. The fuel source is still very much relevant to commercial lorries over the hundreds of thousands of miles that they cover in their lifetime.

Scandinavian design language is all about sculpture and minimalism – less is more. Applying this concept could create a vehicle that is futuristic looking without trying to be. In my opinion, one of the first thoughts when thinking of something with flat sides is architecture. It could be worth looking at Scandinavian architecture to see whether anything could be applied to the design of my vehicle – a touch of heritage.

A big part of endurance off road racing is about being self-sufficient. This makes the packaging of the vehicle very important as it needs to carry its occupants, kit as well as a lot of fuel. It will therefore be important to maximise the amount of space within the vehicle without compromising the design. A squarish shape would make for the most efficient package therefore part of the challenge will be making this look good.

Jaap Speelziek
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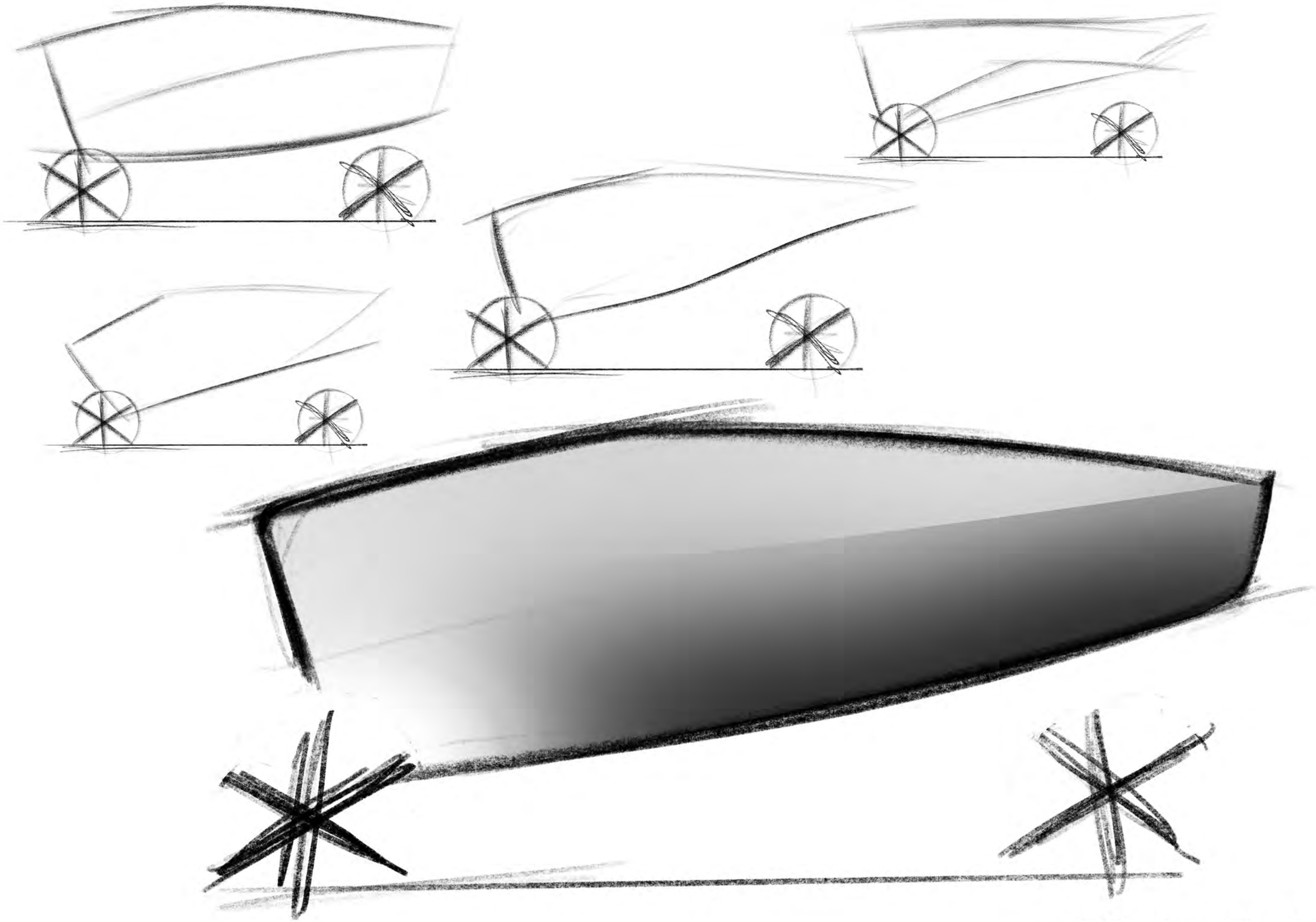

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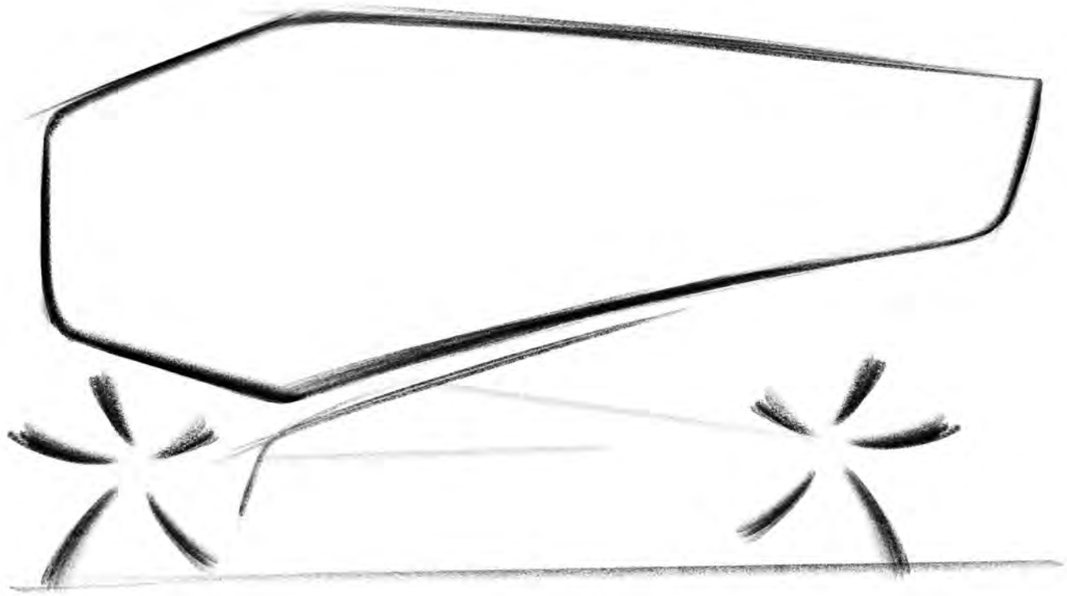

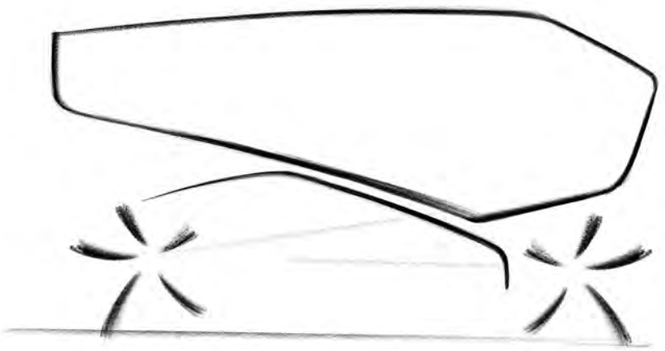

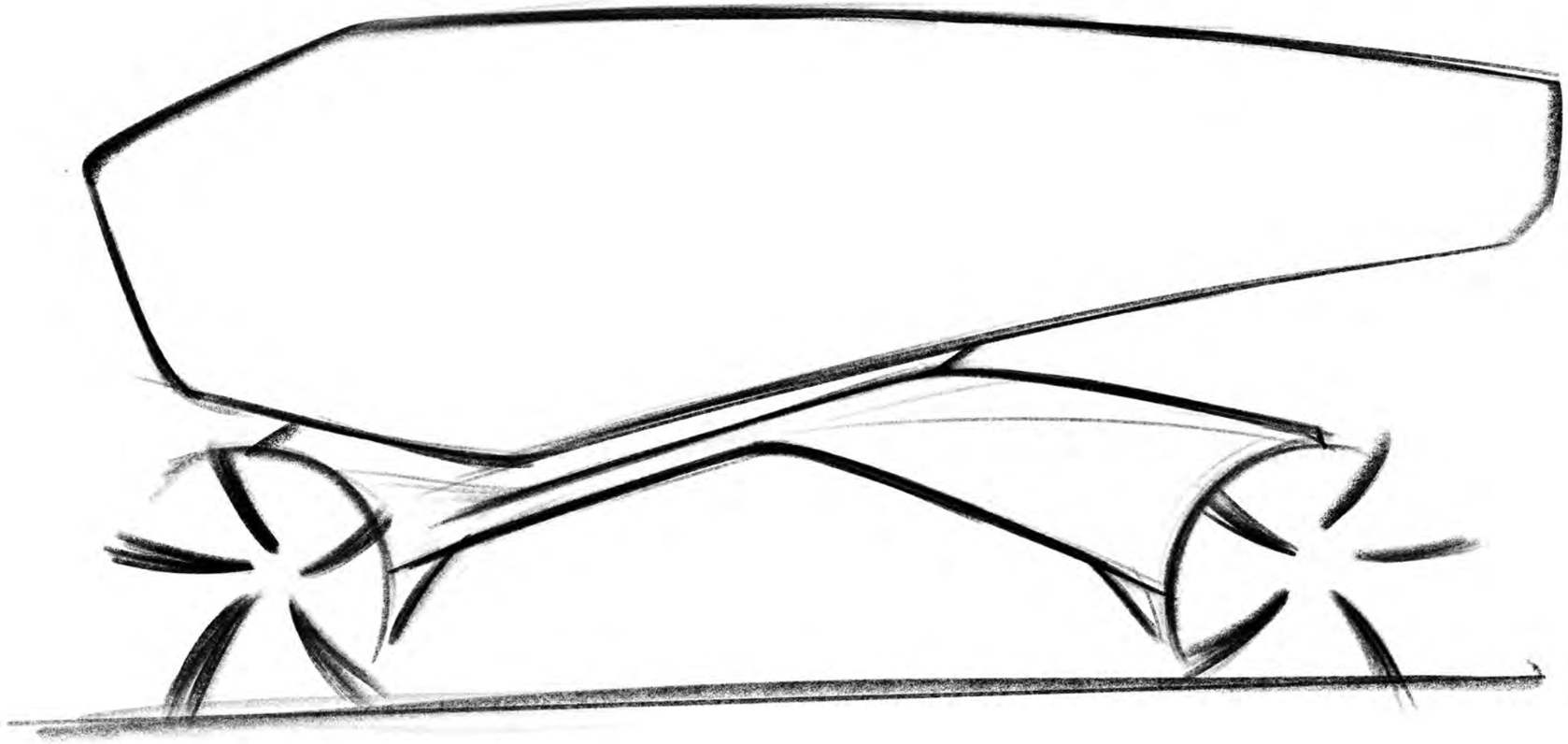

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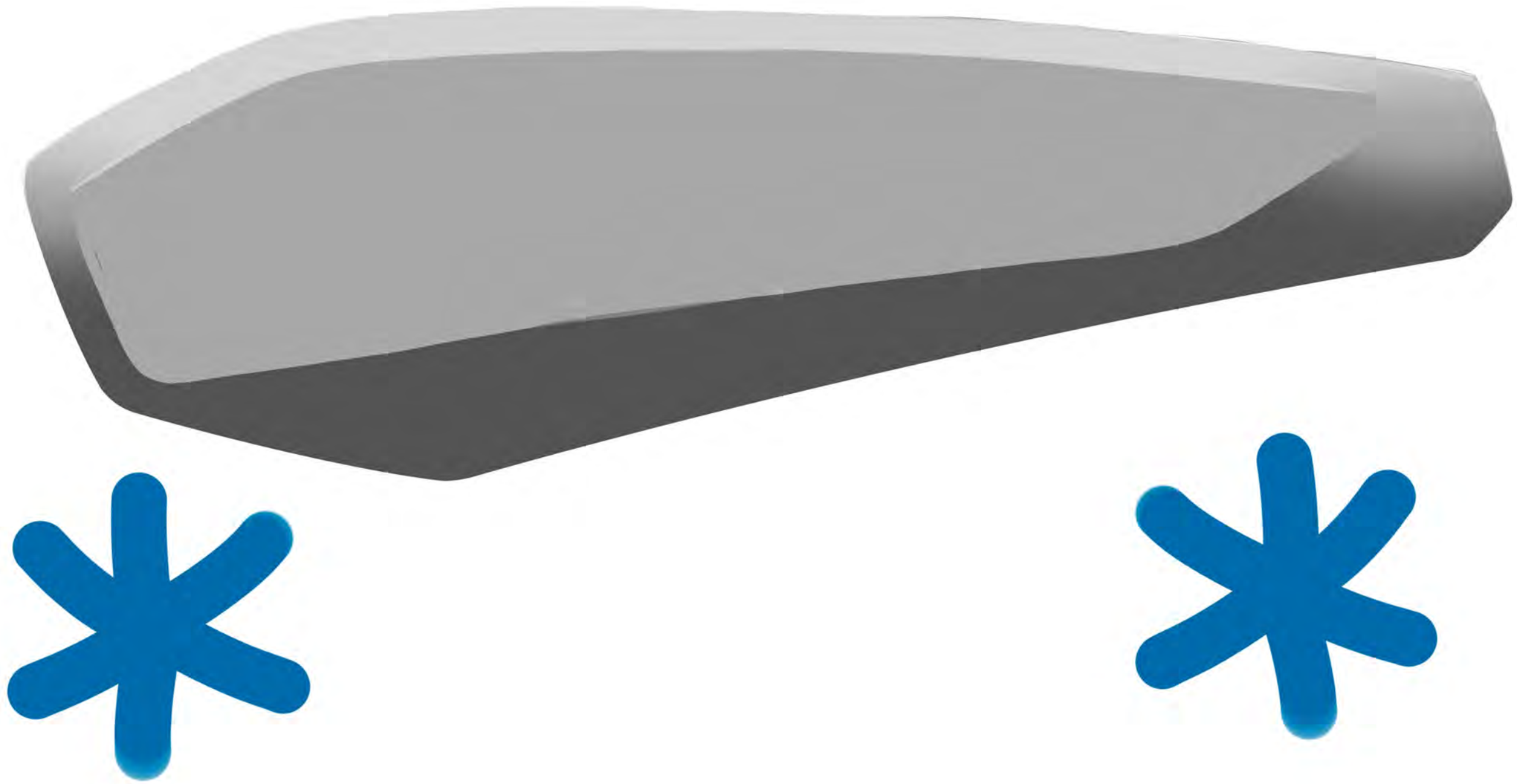

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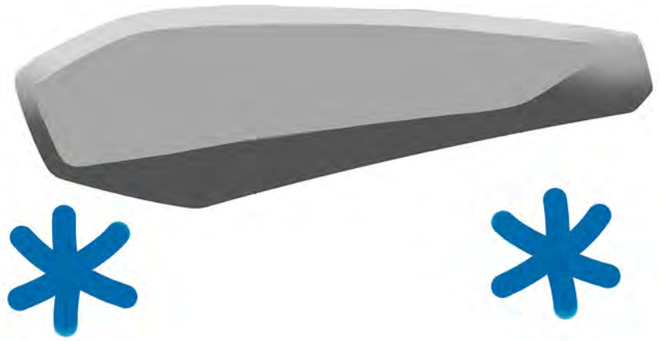

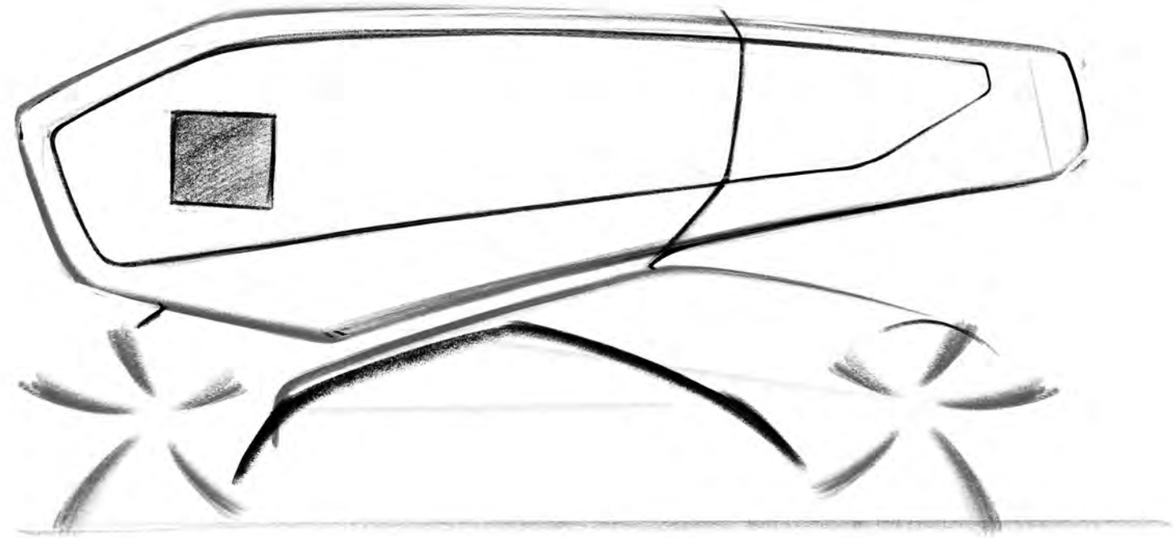

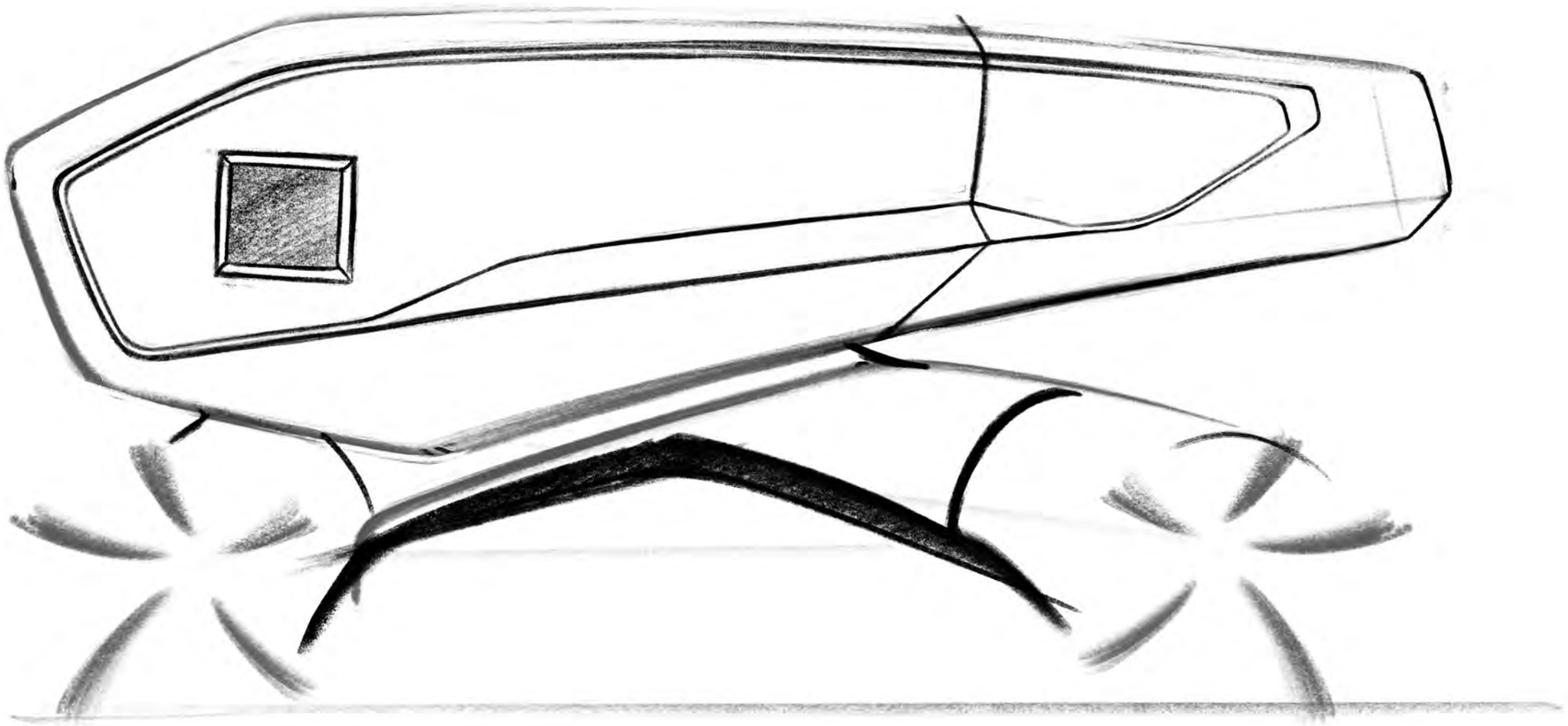

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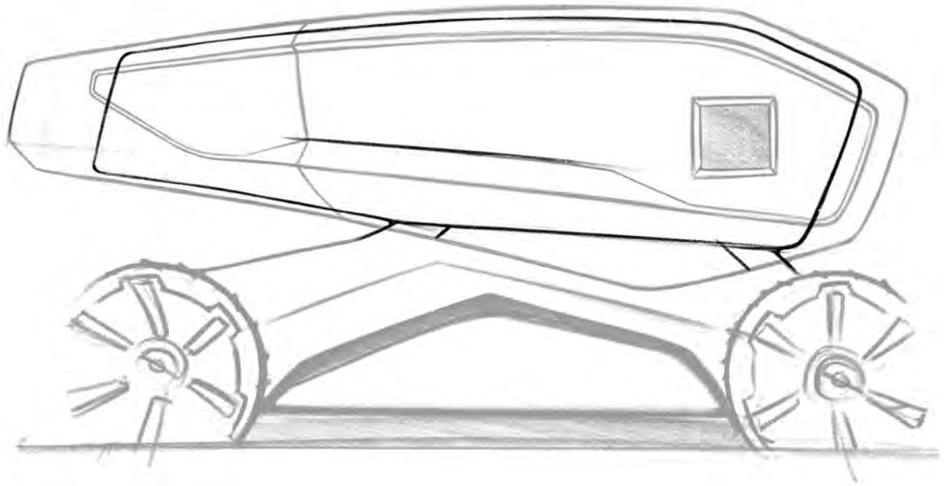

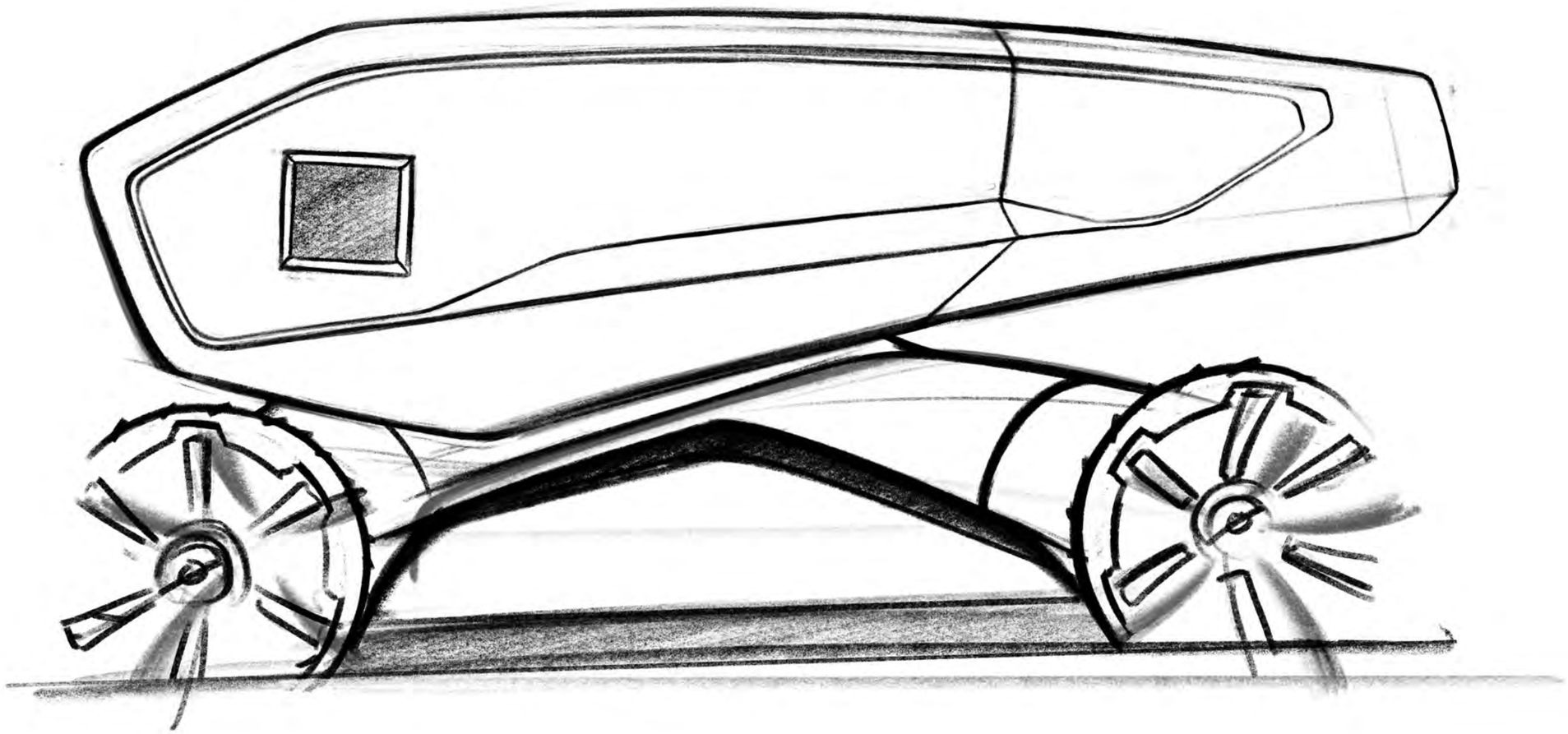

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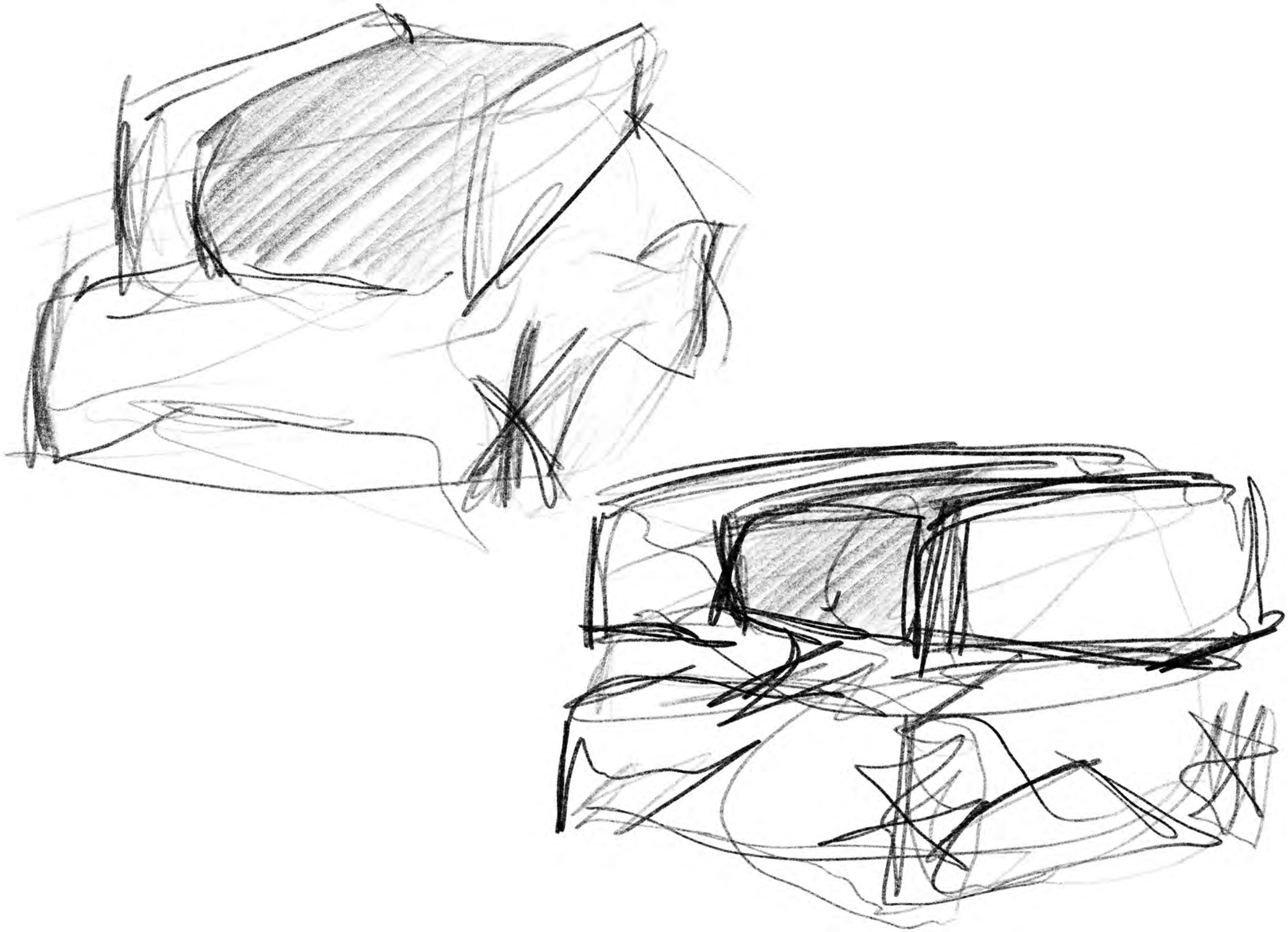

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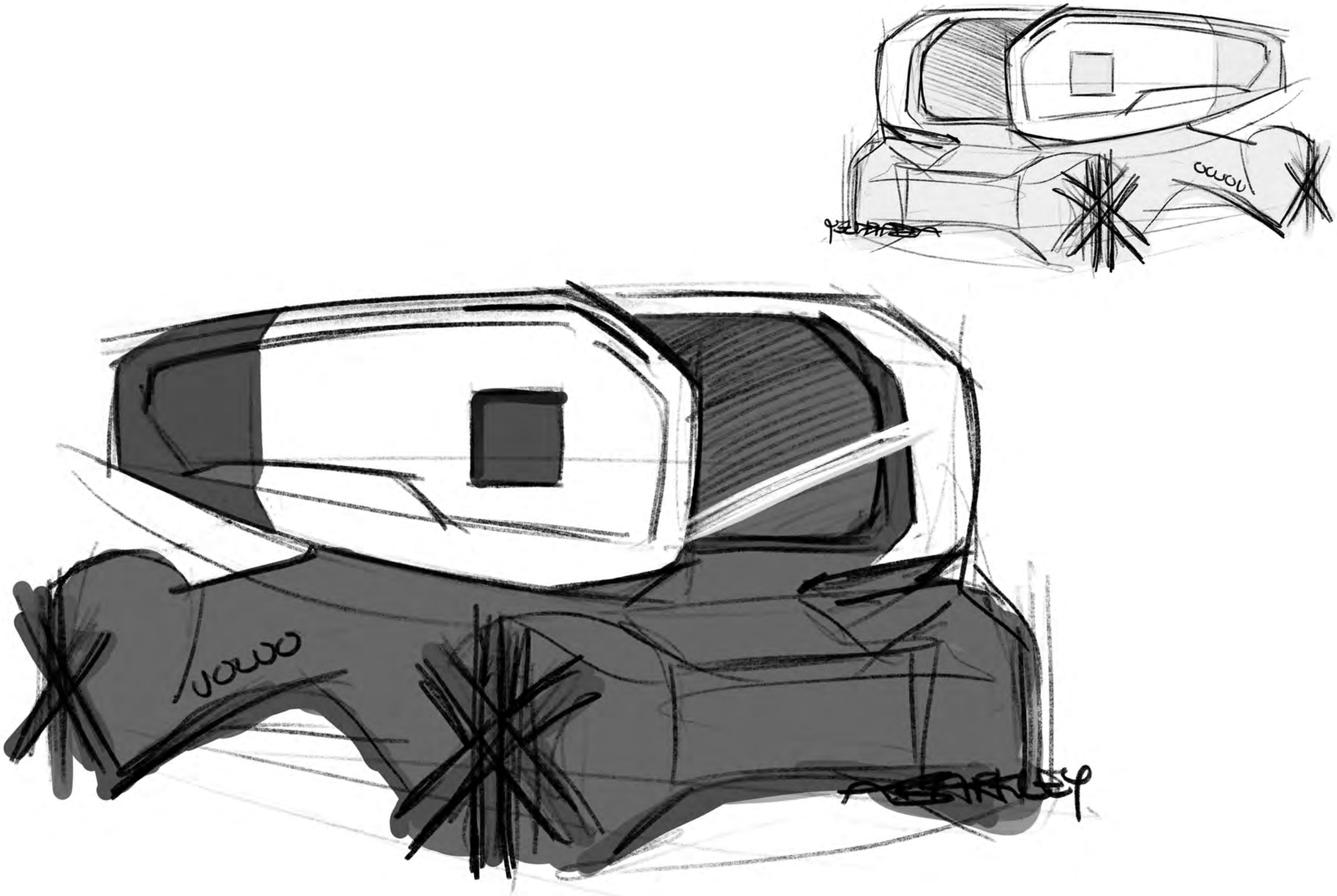

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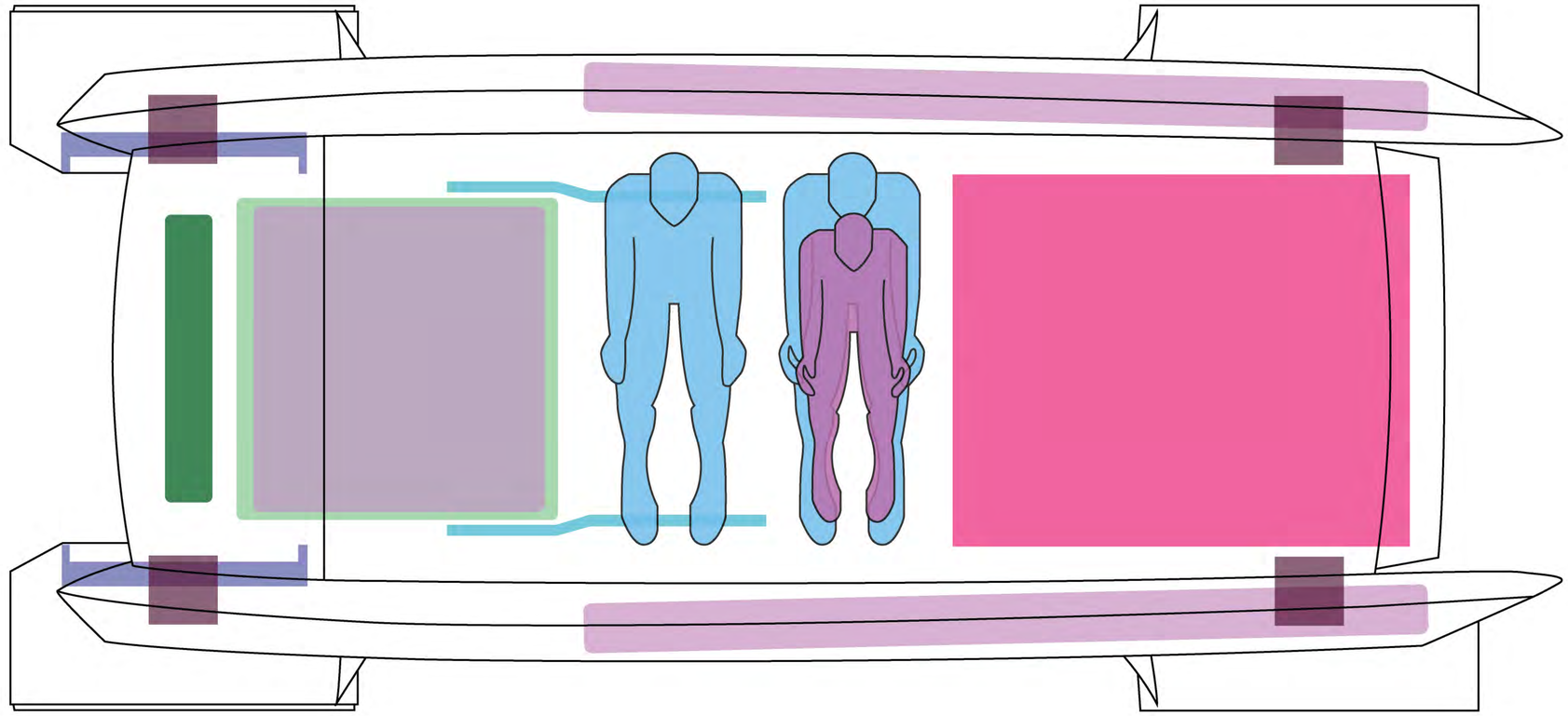
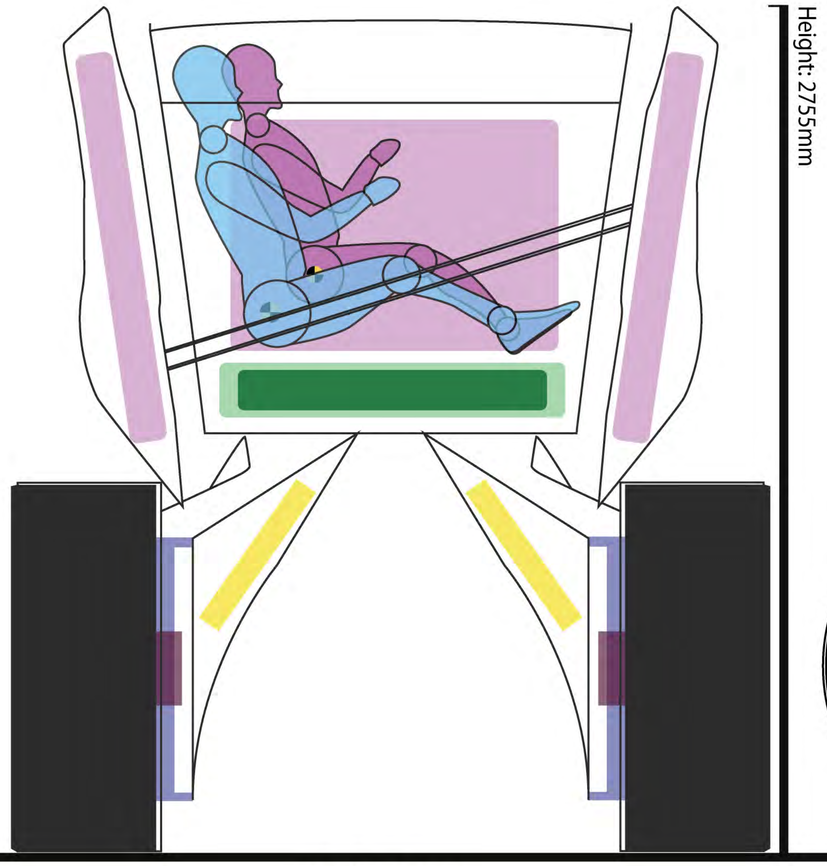
Volvo Dakar Concept

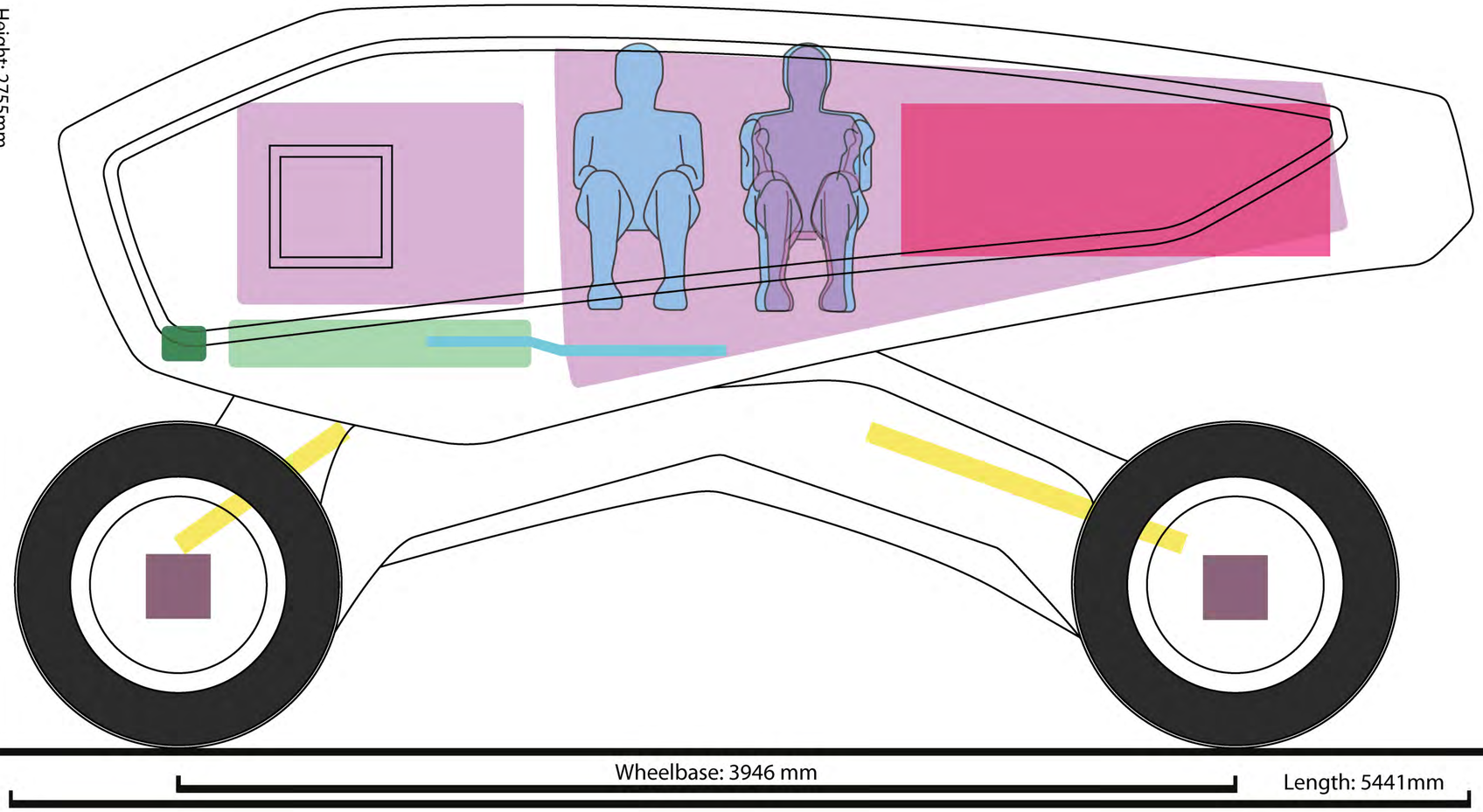
Alistair Barkley

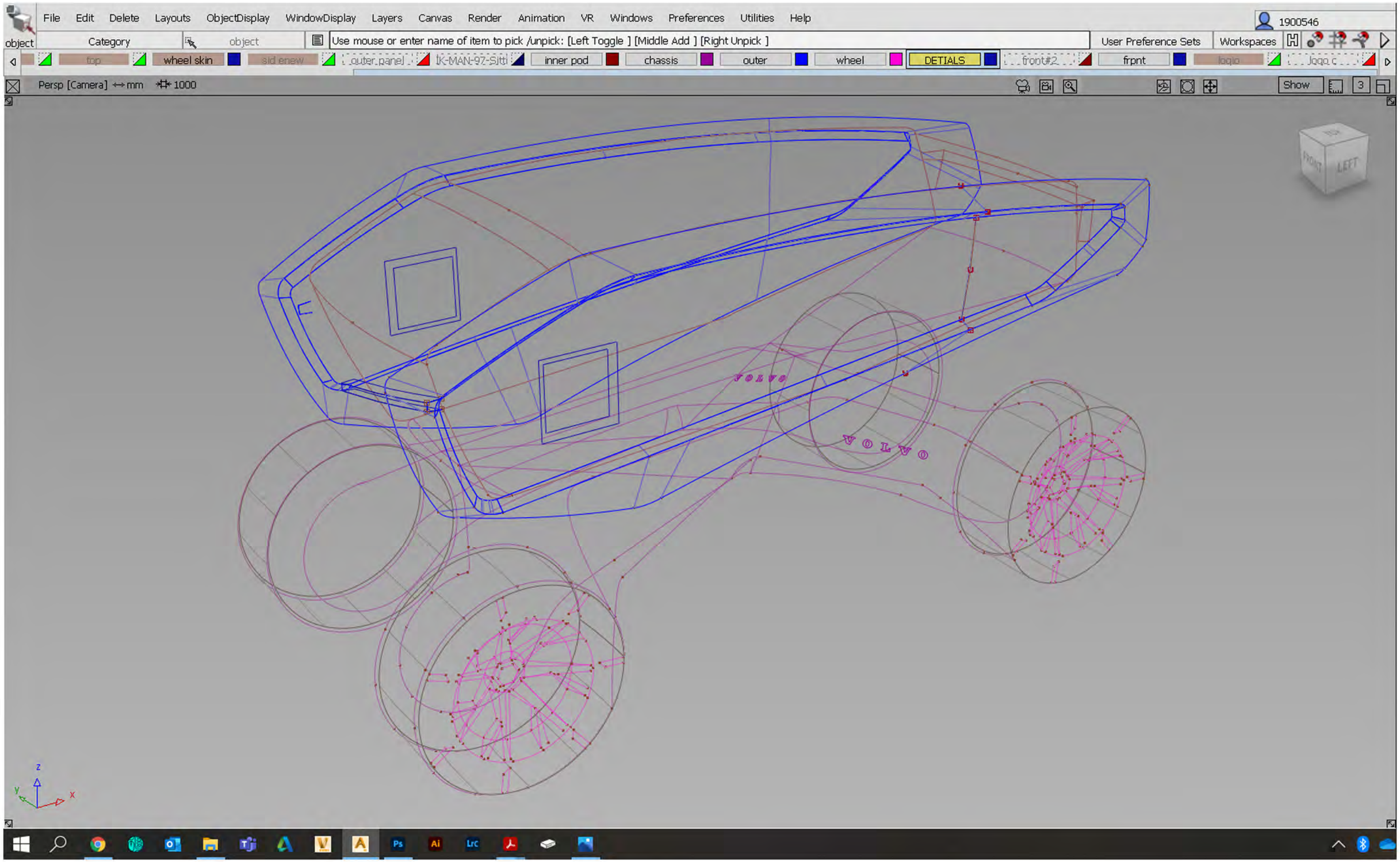
scale = 1/20

- Tyres
- Luggage Space
- Battery
- Motor
- Suspension
- Steering
- Interior
- Hydrogen Tank
- Exhaust
- Fuelcell
- Female Ergo 5th Percentile
- Male Ergo 95th Percentile









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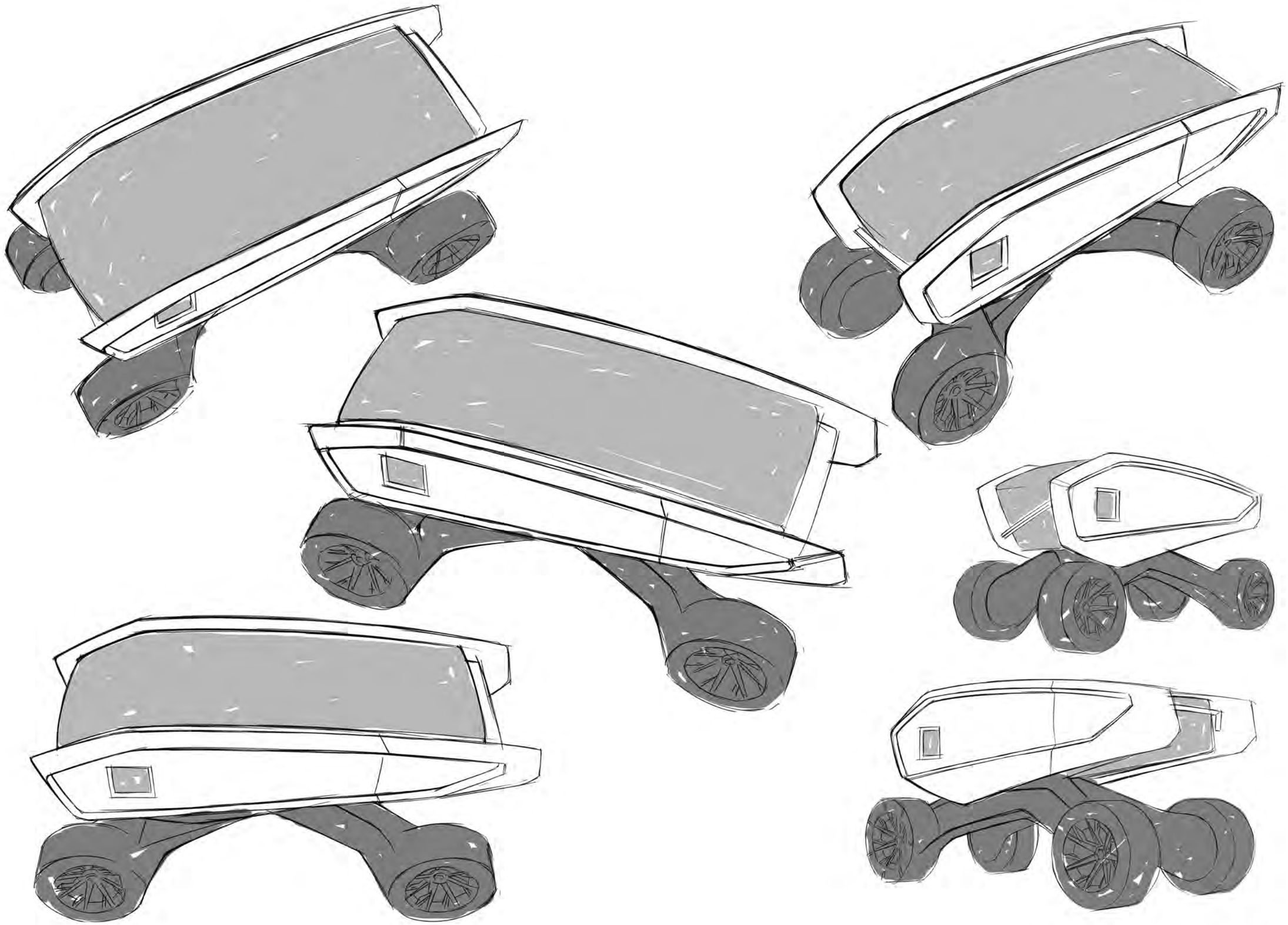

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Dakar Concept

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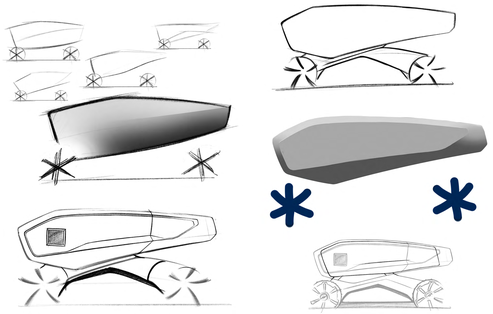

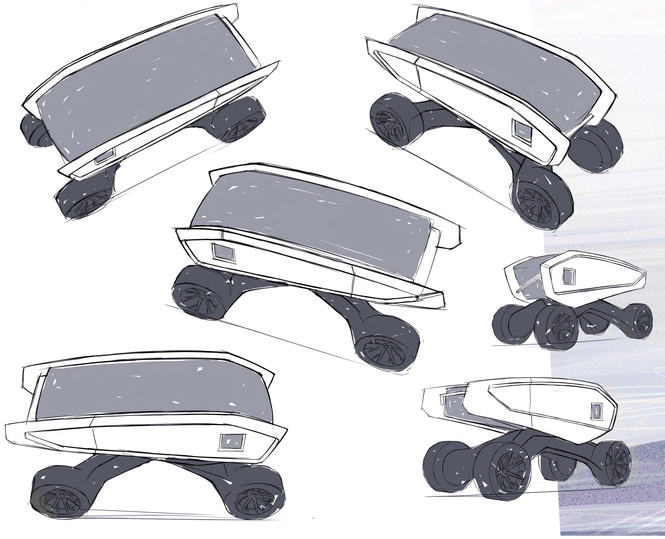
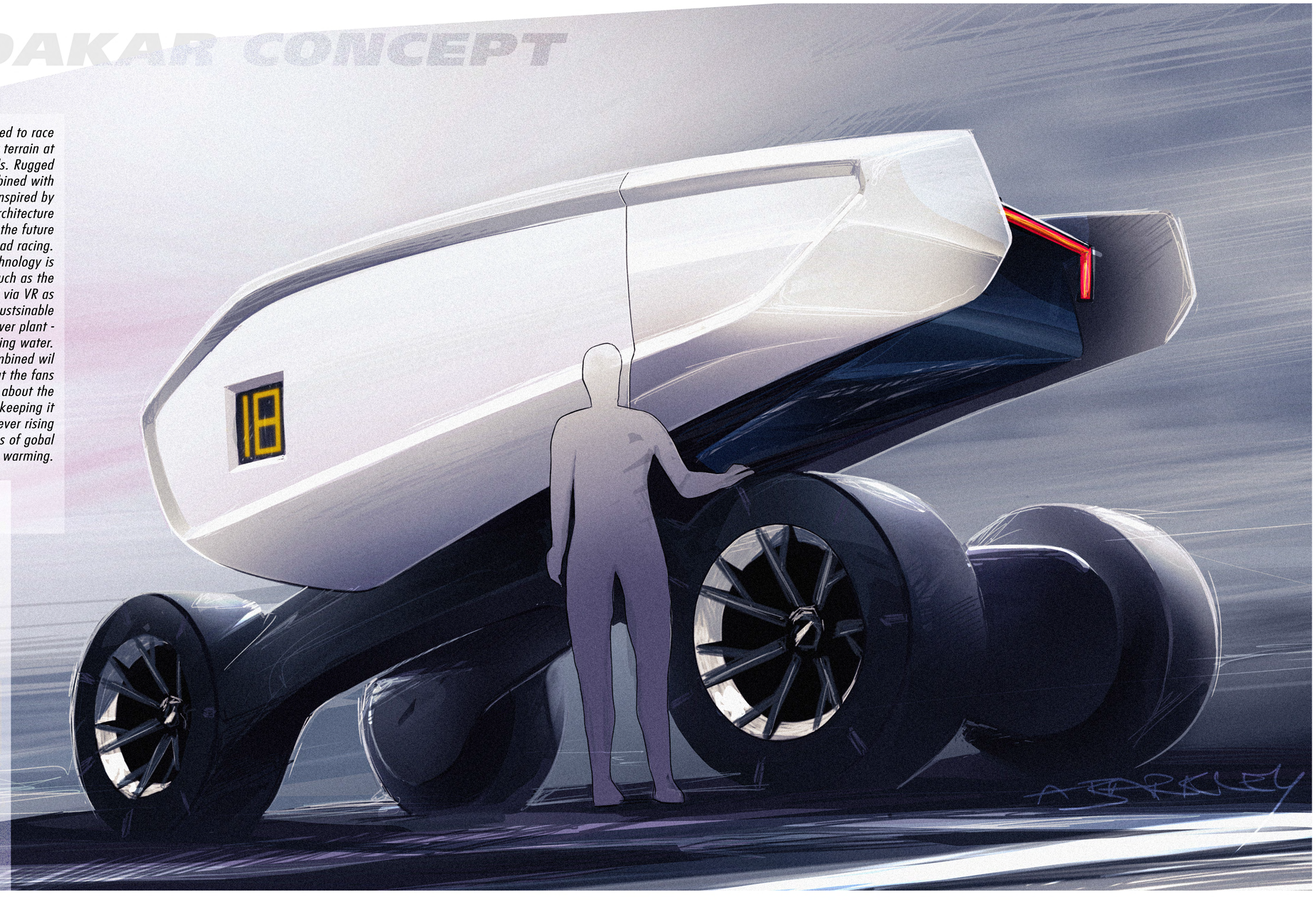
A vehicle designed to race across the toughest terrain at high speeds. Rugged capability combined with features inspired by Scandinavian architecture make this vehicle the future of endurance off road racing. Cutting edge technology is used throughout such as the vehicle control via VR as well as a sustsinable hydrogen fuel power plant - the only waste being water. All of this combined wil retain what the fans currently love about the Dakar while keeping it fighting against ever rising pressures of gobal warming.